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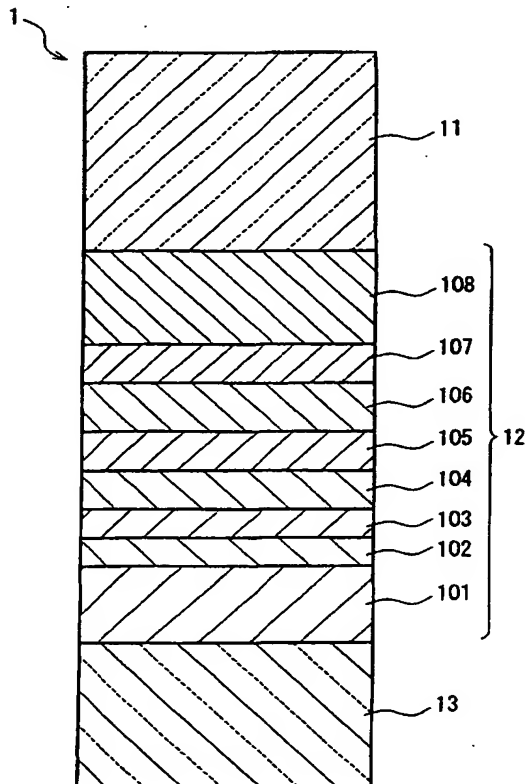
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- (81) 指定国 (国内): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR,

[続葉有]

(54) Title: INFORMATION RECORDING MEDIUM AND METHOD FOR MANUFACTURING SAME

(54) 発明の名称: 情報記録媒体とその製造方法



(57) Abstract: An information recording medium comprises a substrate and an information layer arranged on the substrate. The information layer has a recording layer wherein a reversible phase change between the crystalline phase and amorphous phase is caused by at least one of an optical means and an electrical means, and at least one crystal nucleus-forming layer which contains at least one element selected from Bi and Te and at least one element (M1) selected from the group consisting of Sc, Y, La, Ce, Pr, Nd, Sm, Gd, Tb, Dy, Ho, Er, Yb and Lu. The crystal nucleus-forming layer is in contact with the recording layer.

(57) 要約: 本発明の情報記録媒体は、基板と、前記基板上に配置された情報層とを含んでいる。情報層は、光学的手段及び電気的手段の少なくとも一方によって結晶相と非晶質相との間で可逆的な相変化を起こす記録層と、Bi及びTeから選ばれる少なくとも一つの元素とSc、Y、La、Ce、Pr、Nd、Sm、Gd、Tb、Dy、Ho、Er、Yb及びLuから選ばれる少なくとも一つの元素(M1)とを含み、記録層に接して設けられた少なくとも一つの結晶核生成層と、を含んでいる。



HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

OAPI 特許 (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

添付公開書類:

- 国際調査報告書
- 補正書

(84) 指定国 (広域): ARIPO 特許 (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), ユーラシア特許 (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), ヨーロッパ特許 (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR),

2文字コード及び他の略語については、定期発行される各PCTガゼットの巻頭に掲載されている「コードと略語のガイダンスノート」を参照。

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/11680

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl<sup>7</sup> G11B7/24, 7/26

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1922-1996	Toroku Jitsuyo Shinan Koho	1994-2003
Kokai Jitsuyo Shinan Koho	1971-2003	Jitsuyo Shinan Toroku Koho	1996-2003

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	JP 2002-225436 A (Ricoh Co., Ltd.), 14 August, 2002 (14.08.02), Full text; all drawings (Family: none)	1, 2, 5-33 3, 4, 34, 35
Y	JP 2001-209970 A (Matsushita Electric Industrial Co., Ltd.), 03 August, 2001 (03.08.01), Full text; all drawings & EP 1039448 A2	1-35
Y	JP 2002-2116 A (Ricoh Co., Ltd.), 08 January, 2002 (08.01.02), Full text; all drawings (Family: none)	1-35

☒ Further documents are listed in the continuation of Box C.
 ☐ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document but published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

 Date of the actual completion of the international search  
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Japanese Patent Office

Authorized officer

Facsimile No.

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International application No.

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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 2002-123977 A (Sony Corp.), 26 April, 2002 (26.04.02), Full text; all drawings (Family: none)	1-35
Y	JP 2001-273673 A (Matsushita Electric Industrial Co., Ltd.), 05 October, 2001 (05.10.01), Full text; all drawings (Family: none)	1-35
Y	US 2001-33991 A1 (Koninklijke Philips Electronics N.V.), 25 October, 2001 (25.10.01), Full text; all drawings & WO 01/82297 A1 & JP 2003-532248 A	1-35